

WHAT IS CLAIMED IS:

1. A method of processing data in a data transmitting system, comprising:
forwarding data for further processing in the data transmitting system
when data is being received;
generating idle time synchronizing information during idle time when data
is not being received, the idle time synchronizing information for synchronizing a
data receiving system with the data transmitting system; and
generating packet information by processing the data and the idle time
synchronizing information in accordance with a packet protocol.
2. The method of claim 1, wherein the step of generating idle time
synchronizing information includes:
preparing an abort packet.
3. The method of claim 1, wherein the step of generating idle time
synchronizing information includes:
preparing a runt packet.
4. The method of claim 1, further including:
loading idle time indication information into a data format consistent with
the packet protocol.
5. The method of claim 4, further including:
alternately forwarding the idle time synchronization information and idle
time indication information.
6. The method of claim 1, wherein the step of creating packet information
includes:
scrambling the idle time synchronizing information.

7. The method of claim 1, further including:
creating network information by processing the packet information in accordance with a transport protocol; and
forwarding the network information to a data receiving system.
8. The method of claim 7, wherein the step of creating network information includes:
scrambling the packet information.
9. Apparatus for processing data in a data transmitting system, comprising:
a data element for forwarding data for further processing in the data transmitting system when data is being received and creating idle time synchronizing information during idle time when data is not being received, the idle time synchronizing information for synchronizing a data receiving system with the data transmitting system; and
a packet processing element for creating packet information by processing the data and the idle time synchronizing information in accordance with a packet protocol.
10. The apparatus of claim 9, wherein the data element comprises:
an abort packet preparing element for preparing an abort packet.
11. The apparatus of claim 9, wherein the data element comprises:
a runt packet preparing element for preparing a runt packet.
12. The apparatus of claim 9, further comprising:
a network protocol processing element for loading idle time indication information into a data format consistent with the packet protocol.

13. The apparatus of claim 12, wherein the data element comprises:
a forwarding element for alternately forwarding the idle time synchronization information and idle time indication information.
14. The apparatus of claim 9, wherein the packet processing element comprises:
a scrambler for scrambling the idle time synchronizing information.
15. The apparatus of claim 9, further comprising:
a network processing element for creating network information by processing the packet information in accordance with a transport protocol; and
a data transmission element for forwarding the network information to a data receiving system.
16. The apparatus of claim 15, wherein the network processing element comprises:
A scrambler for scrambling the packet information.
17. A method for receiving data at a data receiving system, comprising:
receiving an idle time synchronizing packet that was generated by a transmitting system during idle time at the transmitting system; and
synchronizing the receiving system with the transmitting system by processing the idle time synchronizing packet.
18. The method of claim 17, further including:
determining the idle time synchronizing packet is a runt packet; and
discarding the packet.
19. The method of claim 17, further including:
extracting the idle time synchronizing packet from network transport information.

20. Apparatus for receiving data at a data receiving system, comprising:
a receiver for receiving an idle time synchronizing packet that was generated by a transmitting system during idle time at the transmitting system;
and
a processing element for synchronizing the receiving system with the transmitting system by processing the idle time synchronizing packet.
21. The apparatus of claim 20, further comprising:
a runt analyzer for determining the idle time synchronizing packet is a runt packet; and
a discarding element for discarding the packet.
22. The apparatus of claim 20, further comprising:
an extractor for extracting the idle time synchronizing packet from network transport information.
23. The apparatus of claim 20, wherein the processing element comprises:
a descrambler for descrambling the idle time synchronizing packet.
24. A method for synchronizing a transmitting system with a receiving system, comprising:
forwarding data from the transmitting system to the receiving system when data is being received by the transmitting system;
creating an idle time synchronizing packet during idle time when the transmitting system is not receiving data;
forwarding the idle time synchronization packet to the receiving system;
and
processing the idle time synchronization packet at the receiving system to synchronize the receiving system with the transmitting system.

25. The method of claim 24, wherein the step of creating an idle time synchronization packet includes:
creating an abort packet.
26. The method of claim 24, wherein the step of creating an idle time synchronization packet includes:
creating a runt packet.
27. The method of claim 24, wherein the step of processing the idle time synchronization packet includes:
descrambling the idle time synchronization packet.
28. The method of claim 24, further including:
processing an incoming data stream in accordance with a network protocol; and
further processing the incoming data stream in accordance with a packet protocol.
29. The method of claim 24, wherein the step of processing the idle time synchronization packet includes:
determining the idle time synchronization packet is a runt packet; and
discarding the idle time synchronization packet.

30. A system for synchronizing a transmitting system with a receiving system, comprising:

a data element for forwarding data from the transmitting system to the receiving system when data is being received by the transmitting system and for creating an idle time synchronizing packet during idle time when the transmitting system is not receiving data;

a forwarding element for forwarding the idle time synchronization packet to the receiving system; and

a receiver processing element for processing the idle time synchronization packet at the receiving system to synchronize the receiving system with the transmitting system.

31. The system of claim 30, wherein the data element comprises:
an abort packet element for creating an abort packet.

32. The system of claim 30, wherein the data element comprises:
a runt packet element for creating a runt packet.

33. The system of claim 30, wherein the receiver processing element comprises:
a descrambler for descrambling the idle time synchronization packet.

34. The system of claim 30, further including:
a network protocol processing element for processing an incoming data stream in accordance with a network protocol; and
a packet protocol processing element for further processing the incoming data stream in accordance with a packet protocol.

35. The system of claim 30, wherein the receiver processing element includes:

a runt packet determining element for determining the idle time synchronization packet is a runt packet and discarding the idle time synchronization packet.

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